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EXAMINER

MENBERU, BENIYAM

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 14, 2009 has been entered.

***Response to Arguments***

2. Applicant's arguments with respect to claims 11, 19, and 20 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 12, 18, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2002/0122194 A1 to Kuwata et al in view of U.S. Patent No. 6198553 to Yamamoto et al further in view of

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U.S. Patent No. 6148092 to Qian further in view of U.S. Patent No. 7274400 to Hyodo et al.

Regarding claim 11, Kuwata et al '194 discloses an image processing method comprising the steps of:

obtaining image data and photographing mode information of the image data (page 1, paragraph 39, 40, 41, 42; image file and attribute information including color space information reads on photographing mode information);

selecting a color space conversion condition from among plural color space conversion conditions, including first and second color space conversion conditions, in accordance with the determination result obtained in said determining step (page 4, paragraph 55, page 5, paragraph 67; sRGB (first color space) or NTSC color space (second color space) condition; page 3, paragraph 39, 40, 41, 42; “color space parameter” determines the color space used. ); and

performing, to the obtained image data, color space conversion of converting luminance/color difference data into RGB data, using the selected color space conversion condition (page 4, paragraph 55; page 5, paragraph 67; YCbCr defines the luminance/color difference data; conversion to either NTSC (which is RGB based color space (see page 4, paragraph 55)), sRGB, or extended sRGB);

wherein a first RGB color space corresponding to the first color space conversion condition is different from a second RGB color space corresponding to the second color space conversion condition, the second RGB color space having a color gamut wider than that of the first RGB color space (page 4, paragraph 55, page 5, paragraph 67;

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sRGB is different from NTSC color space; NTSC color space (second color space) is wider than sRGB (first color space); page 4, paragraph 55). Kuwata et al '194 discloses that the number of bits of the image data converted by using the first color space (sRGB) conversion condition is 8 bits (page 4, paragraph 55, lines 8-9). However Kuwata et al '194 does not disclose wherein the number of bits of the image data converted by using the second color space conversion condition (NTSC color space conversion) is also 8 bits (i.e. same number of bits as the image data converted using the first color space conversion condition).

Yamamoto et al '553 discloses wherein the number of bits of the image data converted by using the second color space conversion condition (NTSC color space conversion) is 8 bits (column 19, lines 8-14; The converted NTSC image data is 8-bits).

Having the system of **Kuwata et al '194** and then given the well-established teaching of **Yamamoto et al '553**, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of **Kuwata et al '194** as taught by **Yamamoto et al '553**, since **Yamamoto et al '553** stated in col. 19, Lines 8-17 (Figure 23, reference 20222), such a modification would provide 8-bit NTSC image data as needed by reference 20222 for further image processing for an RGB system.

However Kuwata et al '194 does not disclose wherein, in a case where it is determined that the photographing mode is the person photographing mode, the first color space conversion condition is selected.

Qian '092 discloses wherein, in a case where it is determined that the photographing mode is the person photographing mode, the first color space conversion

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condition is selected (column 3, lines 33-37; camera device 8; column 3, lines 38-67; column 4, lines 1-14, 41-60; for image of face (person mode), input image which can include luminance/chromaticity data is converted to chromatic color space of r, g; Since the r, g is a subset of the RGB space it is going to have smaller gamut than conversion to an RGB system. ).

Having the system of **Kuwata et al '194** and then given the well-established teaching of **Qian '092**, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of **Kuwata et al '194** as taught by **Qian '092**, since **Qian '092** stated in col. 3, lines 57-67; col. 4, lines 15-25, such a modification would provide color conversion/transformation for detection of facial areas of an image.

However Kuwata et al '194 does not disclose determining whether or not a photographing mode is a person photographing mode, based on the photographing mode information; wherein the photographing mode is a mode which corresponds to photographing an object by a digital camera to generate the image data, and which includes the person photographing mode and a scene photographing mode.

Hyodo et al '400 discloses determining whether or not a photographing mode is a person photographing mode, based on the photographing mode information (column 9, lines 57-67; value of mode dial determines the person mode); wherein the photographing mode is a mode which corresponds to photographing an object by a digital camera to generate the image data, and which includes the person

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photographing mode and a scene photographing mode (column 4, lines 25-29, 45-65; RGB image; column 9, lines 57-67; day/night scene mode ).

Having the system of **Kuwata et al '194** and then given the well-established teaching of **Hyodo et al '400**, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of **Kuwata et al '194** as taught by **Hyodo et al '400**, since **Hyodo et al '400** stated in col. 1, lines 35-41, col. 2, Lines 12-27, such a modification would provide appropriate frames based on photograph mode.

Regarding claim 12, Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 teaches all the limitations of claim 11. Further Kuwata et al '194 discloses an image processing method according to Claim 11, wherein a first RGB color space is an sRGB color space (page 5, paragraph 67; sRGB (first color space)).

Regarding claim 18, Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 teaches all the limitations of claim 11. Further Kuwata et al '194 discloses an image processing method according to Claim 11, further comprising the step of performing an image correction on the image data that has been subjected to a color space conversion (page 5, paragraph 68; "gamma correction").

Regarding claim 19, see the rejection of claim 11 as shown above. The method of Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 renders obvious the apparatus of claim 19.

Regarding claim 20, see the rejection of claim 11 as shown above. The method of Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 renders obvious the programming steps of claim 20.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2002/0122194 A1 to Kuwata et al in view of U.S. Patent No. 6198553 to Yamamoto et al further in view of U.S. Patent No. 6148092 to Qian further in view of U.S. Patent No. 7274400 to Hyodo et al further in view of U.S. Patent No. 6975437 to Takemoto.

Regarding claim 15, Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 teaches all the limitations of claim 11. However Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400 does not disclose wherein the photographing mode information includes flash information.

Takemoto '437 discloses wherein the photographing mode information includes flash information (column 5, lines 50-57).

Having the system of ***Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092 further in view of Hyodo et al '400*** and then given the well-established teaching of ***Takemoto '437***, it would have been obvious to one of



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ordinary skill in the art at the time of the invention was made to modify the system of

***Kuwata et al '194 in view of Yamamoto et al '553 further in view of Qian '092***

***further in view of Hyodo et al '400*** as taught by ***Takemoto '437***, since ***Takemoto '437***

stated in column 6, lines 3-12, such a modification would provide the flash information

needed to specify the right tone curve for the image processing.

### ***Other Prior Art Cited***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6594388 to Gindele et al disclose color image processing.

U.S. Patent No. 7330286 to Fukasawa disclose color conversion system.

U.S. Patent No. 6147772 to Pritchett discloses color conversion.

U.S. Patent No. 7289663 to Spaulding et al disclose image processing.

U.S. Patent Application Publication No. US2005/0174586 A1 to Yoshida et al discloses conversion system.

"A Real-Time Face Tracker", Yang et al, 2-4 December 1996, Applications of Computer Vision, 1996, WACV '96., Proceedings 3<sup>rd</sup> IEEE Workshop on, pp. 142-147.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENIYAM MENBERU whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

***Patent Examiner***

Beniyam Menberu

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Examiner, Art Unit 2625

07/02/2009

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